INVITATION FOR QUOTATION

TEQIP-III/2018/mecj/Shopping/35 **20-Nov-2018**

Sub: Invitation for Quotations for supply of Goods

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	**Brief Description**	**Quantity**	**Delivery Period(In days)**	**Place of Delivery**	**Installation Requirement (if any)**
1	Motor Design Learning Station	1	45	Department of Electronics and Communication Engineering MBM Engineering College, Residency Road, Ratanada, Jodhpur, Rajasthan, 342011	Installation shall be undertaken at a site as directed by department.
2	Power Simulator Work Station	1	45	Department of Electronics and Communication Engineering MBM Engineering College, Residency Road, Ratanada, Jodhpur, Rajasthan, 342011	Installation shall be undertaken at a site as directed by department.
3	Versatile Simulator for Embedded & Control System Design	1	45	Department of Electronics and Communication Engineering MBM Engineering College, Residency Road,	Installation shall be undertaken at a site as directed by department.

				Ratanada, Jodhpur, Rajasthan, 342011	

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme[TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
3. Quotation,
   3.1 The contract shall be for the full quantity as described above.
   3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
   3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
   3.4 Applicable taxes shall be quoted separately for all items.
   3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
   3.6 The Prices should be quoted in Indian Rupees only.
4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than **55** days after the last date of quotation submission.
6. Evaluation of Quotations,

   The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which
   6.1 are properly signed ; and
   6.2 confirm to the terms and conditions, and specifications.
7. The Quotations would be evaluated for all items together.
8. Award of contract:

   The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.

8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.

9. Payment shall be made in Indian Rupees as follows:

   Delivery and Installation - 0% of total cost

   Satisfactory Acceptance - 100% of total cost

10. All supplied items are under warranty of **12** months from the date of successful acceptance of items.
11. You are requested to provide your offer latest by **11:00** hours on **15-Jan-2019 .**
12. Detailed specifications of the items are at Annexure I.
13. Training Clause (if any) **As per need two times on site training shall also be made available**
14. Testing/Installation Clause (if any) **Satisfactory testing and Installation is required at site**
15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
16. Sealed quotation to be submitted/ delivered at the address mentioned below,

    TEQIP-III Office, Department of Computer Science & Engineering, M.B.M. Engineering College, Residency Road, Ratanada, Jodhpur.
17. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation

Annexure I

Sr. No	Item Name	Specifications
1	Motor Design Learning Station	This station shall have (i) industrial server machine having i5 quad core min. 2 GHZ CPU with 4GB RAM, min. 1 TB Hard Disk, min. 21.5” High resolution HD type monitor, RiticompCherry 105 keys keyboard, mouse, DVD R/W drive, ampli-stereo-speaker set min. 10” height with tone control, two RS232 serial ports, 2 USB ports 2.0 or above, intel make chipset mother board housed in 19” Industrial grade chassis horizontal MS body powder coated with lock and keys and front handles with licenses O.S.. (ii) A User Friendly Interactive motor design learning environment with GUI, having flexibility to create different designs for a particular requirement. It shall have library of standard tables for different constants and variables to help the designer. The designs could be definable in kW as well HP. There shall be variable section alongwith standard tables to help in parameter ion. The system shall provide for material ion with their corresponding characteristic curves for core design, detailed winding placement in different stator slots, starting Torque & full load torque calculations, No-load and full-load efficiency calculations, Equivalent Circuit of designed motor, Different characteristics curve for designed motor, Losses & power flow at different stages of machine operation, Calculation of temperature rise in different parts of machine during operation, Approximate cost estimation of designed motor. It shall have facility to export the complete designed machine into ASCII format and prepare customized reports for all design parameters readable in MS-Excel & MS-Access. It shall provide diagrams with different 3D views to better understand physical structure of a basic Squirrel Cage Induction Motor with all its parts. It shall have facility to provide for different winding connections, Facility to design double cage induction motor, Visual presentation of output parameters on diagram. It shall be supported by Help option at each step of design. (iii) Lab workbook featuring case studies on various on chip and off chip peripherals with soft copies of the examples to be provided with

		their live demonstration while installation/training. (iv) any needed cables/connectors, support programming tools, compiler/assembler etc. (v) Learning materials CD and two times training program support at site post installation and testing with demonstration of complete design case. (vi) An external cooling unit to maintain/control ambient temperature for above workstation : 1.5T, min. 3-star rating, having copper condenser, temperature indicator, auto restart, timer/sleep mode, remote control, power consumption below 1500W, noise less than 55dB, cleanable anti dust filter, 220/230V operated window installable unit. Note: 1. Complete integrated Solution/setup of above specification be quoted for. 2. The equipment shall be carry warranty of 12 calendar months from date of installation. 3. The support technical manuals in printed/e-form be provided. 4. Vendor must have technically competent support facility, by which the support needs of the department be attended within two working days at site of installation of equipment. As per need, two times on site training shall also be made available 5. Department may ask for live demonstration of proposed equipment/set up for technical compliance at the time of evaluation of technical bids during the tendering process.
2	Power Simulator Work Station	(i) It will provide interactive simulation for Magnetics modelling, Loss calculation and thermal analysis, control simulation with comprehensive motor drive library, support for custom C code and DLL, and ability to link with Matlab/Simulink and finite element analysis software. Simulator shall have core module annexed with module for (a) motor drive systems (b) digital control systems (c) loss calculation and thermal analysis (d) co-simulation with Matlab/Simulink and TI F28335 Target Module; to provide analysis and design of power converters, motor drives, analog & digital control systems. (ii) Modules shall be commissioned thru industrial server machine having i5 quad core min. 2 GHZ CPU with 4GB RAM, min. 1 TB Hard Disk, min. 21.5” High resolution HD type monitor, Riticomp Cherry 105 keys keyboard, mouse, DVD R/W drive, ampli-stereo-speaker set min. 10” height with tone control, two RS232 serial ports, 2 USB ports 2.0 or above, intel make chipset mother board housed in 19” Industrial grade chassis horizontal MS body

		powder coated with lock and keys and front handles with licensed O.S.. (iii) Interfaced educational Practice Board in wood box housing for TMS320F28335 Digital Signal Controller with C2000 Delfino series 150 Mhz Processor. On chip: 32-bit FPU, 68kB RAM, 512kB Flash memory. On board : IEEE 1149.1 JTAG emulation connector with LED indication, 6 channel DMA controller for ADC, McBSP, ePWM, XINTF, SARAM, 1MB (64kx16) off-chip SRAM memory, 256K EEPROM interface, USB for Flashing. On board Data Transfer Interfaces : USB and DB9 Connector for UART-A interface with Transmit and Receive data LEDs at UART-A, 3 pin header for UART-B interface, DB9 and 4 pin header connector for CAN-A and CAN-B interface with onboard hardware Loop back mode feature, SPI and I2C devices. Onboard I/O Interfaces and other Facilities : Power-On LED, Connector for Watchdog timer output, GPIO lines via 10x2 connector, DB25 Connector for 5V 8 Digital I+O interface, Error + Trip +5V compatible connector for Inverter control module, LED at GPIO Pin as GPIO Test point, I2C based Off-Chip EEPROM interface, I2C based Off-Chip RTC interface. Onboard Special functionality: DB9 for 6 channel capture interface, DB25 for 12 channel PWM interface. Two DB15 for 8 Channel On-Chip ADC-A, ADC-B interfaces with 3V protection, Potentiometer to test On-Chip ADC, DB9 for 4 channels SPI based on board DAC interface, Reset Switch with LED indication, Switch for Run/Program mode switching with LED indication, 4-way DIP Switch for 16 different boot mode ion, Input Voltage-9V DC, Test points for All the PWM, ADC and Power. (iv) USB JTAG Emulator for EPB28335 for CCS V5 compatible with Code Composer Studio development environment. LED light to indicate active USB connector. (v) A workbook with case studies and procedures on various on chip and off chip peripherals for above shall be provided with including sample programs and codes. (vi) Demonstration, onsite training to be done twice post installation and testing. CD/Manuals, needed cables connectors included. (vii) An external cooling unit to maintain/control ambient temperature for above workstation : 1.5T, min. 3-star rating, having copper condenser, temperature indicator, auto restart, timer/sleep mode, remote control, power consumption below 1500W, noise less than 55dB, cleanable anti dust filter, 220/230V operated window installable unit. Note: 1.

		Complete integrated Solution/setup of above specification be quoted for. 2. The equipment shall be carry warranty of 12 calendar months from date of installation. 3. The support technical manuals in printed/e-form be provided. 4. Vendor must have technically competent support facility, by which the support needs of the department be attended within two working days at site of installation of equipment. As per need, two times on site training shall also be made available 5. Department may ask for live demonstration of proposed equipment/set up for technical compliance at the time of evaluation of technical bids during the tendering process.
3	Versatile Simulator for Embedded & Control System Design	Shall have (i) industrial grade 24/7/365 cool server having CPU i7 quad core min. 2 GHZ CPU with 4GB RAM, min. 1 TB Hard Disk, min. 27 inch High resolution HD type, Riticomp Cherry type min. 105 keys keyboard, mouse, DVD R/W drive, 2 X RS232 serial ports, 2 X USB ports 2.0 or above, intel chipset make mother board housed in 19" MS steel grade powder coated industrial horizontal chassis with lock and keys and front handles, cooling fan with externally openable dust filter with licensed O.S. (ii) Visual graphic interface and simulation engine for modeling dynamic simulation of complex embedded control systems via block diagram creation and manipulation supported by extensive expandable block libraries containing engineering, mathematical and scientific functions that represent linear and nonlinear systems to test behavior in continuous time, sampled time, or a combination of both. 2 state transition diagram editor to simulate event-driven systems. Model making facility for linear, nonlinear, time-varying, discrete/ continuous-time and hybrid systems. Fixed, adaptive and stiff system integration algorithms with Parameter optimization. Conditional simulation scenarios translator; Facility for data exchange import/export with MatLab/Mathcad etc, 3D interactive animation and plotting of Interactive XY, time domain, FFT, discrete plots. Prototyping/automatic code generation and download for various MCUS, DSPs. Automatic scaling of fixed-point operations, algorithm validation using off-line simulation. Digital Control blocks with programming for designing motion control systems based on AC induction, brushless DC, PMSM, and stepper motors existing

		F28035, F28835. 16 and 32 bit digital motor control blocks including PID, 3-Phase PWM Drivers, Space Vector Waveform Generators, Park and Clarke Transforms, sensorless flux and rotor speed estimation, quadrature-encoder-based speed calculation, Volts-to-Hertz Profiles. In built ADC, ePWM, eCAP (event capture), SPI, SCI (RS232 serial), I2C, digital GPIO, CAN 2.0, P (quadrature encoder). The simulated control algorithm run in real time on the target MCU for discrete, continuous and hybrid systems. (iii) Compatible hardware i.e. C2000 Peripheral Explorer Kit having F28335 control card with onboard XDS100 and a baseboard with cables/connectors to interact with peripherals and USB JTAG emulation. (iv) Lab workbook featuring case studies on various on chip and off chip peripherals with soft copies of the examples to be provided with their live demonstration while installation/training. (v) any needed cables/connectors, support programming tools, compiler/assembler etc. (vi) Learning materials CD and two times training program support at site post installation and testing. (vii) An external cooling unit to maintain/control ambient temperature for above workstation : 1.5T, min. 3-star rating, having copper condenser, temperature indicator, auto restart, timer/sleep mode, remote control, power consumption below 1500W, noise less than 55dB, cleanable anti dust filter, 220/230V operated window installable unit. Note: 1. Complete integrated Solution/setup of above specification be quoted for. 2. The equipment shall be carry warranty of 12 calendar months from date of installation. 3. The support technical manuals in printed/e-form be provided. 4. Vendor must have technically competent support facility, by which the support needs of the department be attended within two working days at site of installation of equipment. As per need, two times on site training shall also be made available 5. Department may ask for live demonstration of proposed equipment/set up for technical compliance at the time of evaluation of technical bids during the tendering process.

FORMAT FOR QUOTATION SUBMISSION

(In letterhead of the supplier with seal)

Date: _____

To:

_____

_____

Sl. No.	Description of goods (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
Total Cost							

Gross Total Cost (A+B): Rs. _____

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. ———————— (Amount in figures) (Rupees ————————amount in words) within the period specified in the Invitation for Quotations.

We confirm that the normal commercial warranty/ guarantee of ——————— months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: _____

Address: _____

Contact No: _____